

Chairmen of the sessions include Ira N. Gabrielson, director, U. S. Fish and Wildlife Service; Walter H. Chute, director, John G. Shedd Aquarium, Chicago; Warren W. Chase, regional director, U. S. Soil Conservation Service; Arthur D. Hasler, department of zoology, University of Wisconsin, and Miles D. Pirnie, director, Kellogg Bird Sanctuary, Battle Creek, Michigan. H. H. Bennett, director of the U. S. Soil Conservation Service, will address the conference at the annual banquet on November 14.

As already reported in *SCIENCE* the Natural Resources Building, the new home of the Illinois Natural History Survey and the Geological Survey, on the south campus of the university, will be dedicated on November 15. The Geological Survey is sponsoring a conference on coal, oil, gas and industrial minerals, and will join the Natural History Survey in the dedication ceremonies. Participating will be representatives of the Federal and State Governments, through which construction funds were provided, and of cooperating universities, research institutions and industrial organizations. The dedication address of Dr. Isaiah Bowman, president of the Johns Hopkins University, will be followed by a reception in the new building and by a banquet in the evening.

Originating at Urbana in 1935, the Midwest Wildlife Conference has annually since that time assumed increased importance among wildlife technicians of the central part of the country. States usually represented, in addition to Illinois, are Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. This year, Kansas and Oklahoma will send wildlife technicians to take part in the special clinic on prairie chickens planned for November 14.

#### AWARD OF THE WILLIAM H. NICHOLS MEDAL OF THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY

DR. LINUS PAULING, head of the division of chemistry and chemical engineering of the California Institute of Technology, has been awarded the William H. Nichols Medal for 1941 of the New York Section of the American Chemical Society, according to an announcement made by Professor Arthur W. Hixson, of Columbia University, chairman of the medal jury.

Dr. Pauling is cited "for his distinguished and

pioneer work on the application of quantum mechanics to chemistry and on the size and shape of chemical molecules." The presentation will be made at a dinner of the section on March 7, at which time he will deliver the annual address of the Nichols medallist. The official statement by the jury giving the grounds for which the award was made reads:

Dr. Pauling has profoundly influenced the whole of chemical thought. His study of "The Nature of the Chemical Bond," appearing last year, was acclaimed by critics as the most valuable work on molecular structures in relation to chemistry published for a number of years. It excited more interest and enthusiasm than any treatise on a specialized topic in chemistry since Gilbert N. Lewis and Merle Randall, of the University of California, published their "Thermodynamics" in 1923.

Dr. Pauling has pioneered in applying quantum mechanics to chemistry. He has done much to explain the manner in which atoms are linked together to form molecules and why certain atoms react and combine differently under different circumstances. His contributions have been technical as well as theoretical. He has developed methods of testing conclusions drawn from theoretical study, and means of measuring the size and shape of molecules.

Because of the chemical rules which have been formulated by Dr. Pauling, chemists are able to predict the reaction of certain molecules under various conditions. His work applies equally to organic, biological and inorganic chemistry. He has shed light on the shape and activity of the protein molecule. By using actual experimentation to check his theoretical explanations of the manner in which atoms in the protein molecule must combine, Dr. Pauling has eliminated a number of hypotheses concerning the shape of the molecule.

It was Dr. Pauling who discovered that a radius of activity could be assigned to each atom; that is, there is a definite amount of space "filled" by each atom with its force. Adjacent carbon and oxygen atoms are therefore usually at a set, determinable distance apart. When this distance varies it is an indication of some force exerting influence. Dr. Pauling has originated methods of accounting for such forces and consequently of explaining in part some of the erratic properties of atoms.

Dr. Pauling has been responsible for the application of the resonance phenomenon to chemistry. This phenomenon accounts for the attraction and repulsion that atoms have for one another, and also in part for the manner in which atoms bind together to form molecules. It aids in explaining valence bonds, the links between atoms.

## SCIENTIFIC NOTES AND NEWS

DR. JAMES EWING, emeritus professor of pathology at the Cornell University Medical School and formerly director of Memorial Hospital for the treatment of cancer and allied diseases, was presented with the fourth Clement Cleveland Medal of the New York

City Cancer Committee at a dinner given on October 30 in the National Arts Club. The medal was awarded for "outstanding work during the year in the campaign to control cancer."

For his article entitled "The Surface of the Nearest